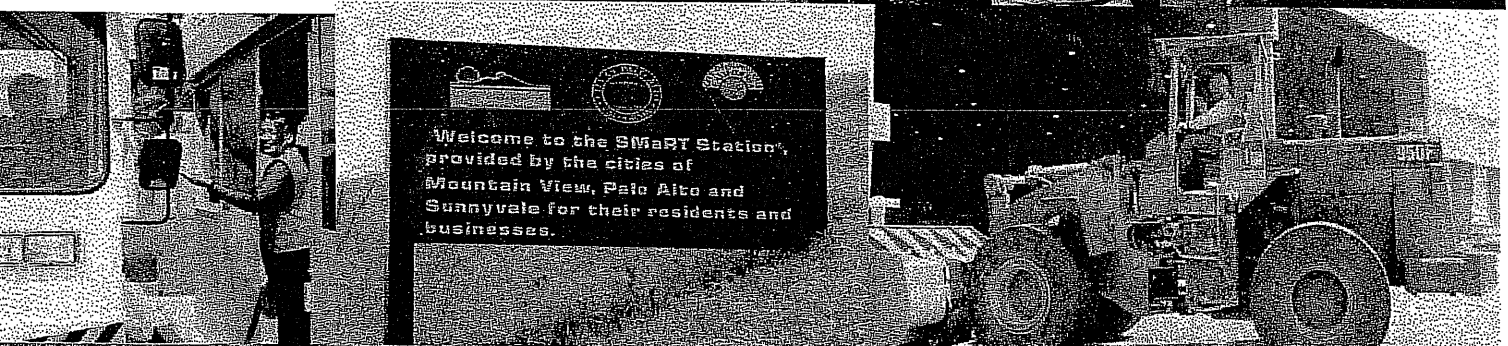


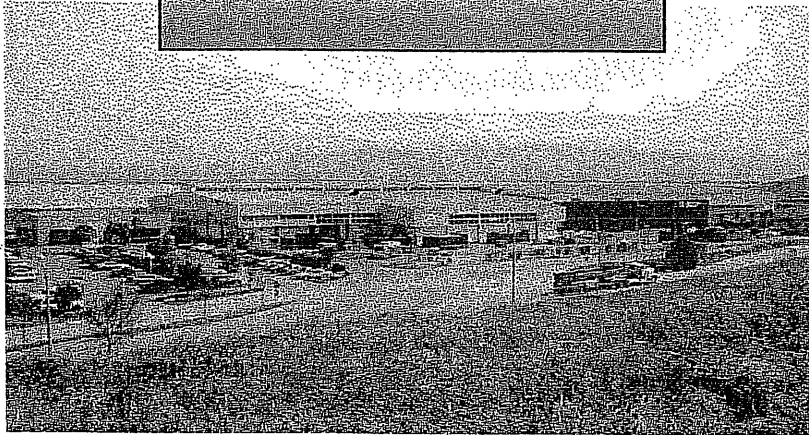
SMaRT Station®
Materials Marketing Plan
1999

Operated by: Waste Management-Sunnyvale

**Prepared by: Marnie Kelly
Product & Compliance Manager**



Executive Summary



Waste
Sunnyvale, as
SMaRT
continues to
standards and
most
processing

materials. In 1998, recovered tons increased by 10 tons per day; an increase of 19%, once again setting a new record in recovery percentages. The increase in production can be attributed to innovations such as improvements to the materials recovery facility sorting process, continuous training in material sorting systems and modified employee incentives for reaching diversion goals. Our philosophy at the SMaRT Station has been to employ high quality, diverse employees who are empowered to communicate and share ideas. Attention to detail in our daily operations and management decisions has given us the proven ability to reach the highest standards in the industry. As a result, we feel the SMaRT Station is the premier mixed waste processing facility in the country.

Management-
operators of the
Station®,
reach higher
experienced our
successful year
recyclable

On July 16, 1998, USA Waste Services announced a pending merger with Waste Management to become the largest company in the solid waste industry. Since then, our company has successfully integrated 304 landfills, 330 transfer stations and 684 collection operations generating over 12 billion dollars in revenue. In Northern California, Waste Management currently operates ten other recycling facilities, allowing us to pull resources together and leverage excellent market pricing for our combined commodities.

As we enter into 1999, Waste Management will focus on five primary objectives in its commodity marketing strategy. These include reaching higher diversion goals, expanding the types of materials recovered where possible, maintaining high quality standards, using "highest and best use" recycling guidelines and integrating a curbside recycling program at the SMaRT Station.

A marketing history for all of the SMaRT Station's outbound recyclable material for 1998 including pricing and tonnage data is profiled in the following marketing plan. A marketing strategy for our current and potential markets such as MRF fines and food waste recovery is detailed for 1999.

In the last section of the Materials Marketing Plan, various marketing tools are discussed and promotional programs are proposed. The Recycling Coordinator for Waste Management-Sunnyvale will be responsible for the marketing and administration of the recyclable materials on behalf of the SMaRT Station. This includes interaction with end-users in the development of markets and coordinating with operations management to implement new diversion programs complementary to evolving markets and assist in the training and retraining of sorters to optimize product quality and flexible specifications. This individual will coordinate with other Waste Management districts for marketing and all necessary and required documents to operate and account for the materials recycling program.

SMaRT Marketing Objectives

Integrate Curbside
Recycling

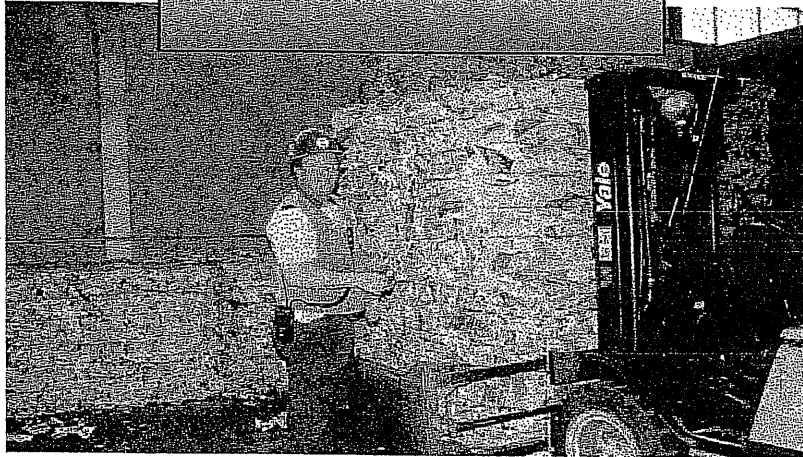
Combine "Highest and
Best Use" Recycling

Maintain High Quality
Standards

Expand Types of Materials Recovered

Reach Higher Diversion Goals

Marketing Objectives



For the year
Waste
successfully
46,000 tons of
processed
SMaRT Station.
materials were

local, national and international markets through brokers/agents, to secondary processors and direct to mills for end-use. The marketing strategy for the SMaRT Station will continue to emphasize quality, long-term relationships with well established buyers to maximize pricing and continued movement of material in the event of adverse markets, such as those experienced in 1996.

ending 1998,
Management
marketed over
material
through the
These
shipped to

Waste Management is targeting five primary marketing objectives for 1999:

- **Reach higher diversion goals despite decreasing recyclables in the municipal solid waste stream through increased productivity levels**

Curbside diversion will continue to impact the recovery of cardboard at the SMaRT Station as well as increased business participation in commercial pick-up routes throughout Sunnyvale, Mountain View and Palo Alto. Though contracted to receive a minimum tonnage per year from the participant cities, Waste Management expects the amount of available recyclable material to decrease as residents and business members in the community become better educated about the value of recycling and the benefits to our environment and their pocketbooks. Despite these obstacles, we will strive to maintain and where possible, increase our diversion percentage at the SMaRT Station through higher productivity levels. Accurate systems of measuring equipment and labor productivity, preventative maintenance, accident prevention programs and an incentive system for laborers are our primary means of reaching increased diversion goals.

- **Expand types of materials recovered**

The SMaRT Station currently markets 23 types of recyclable material to processors, brokers and end-users. Since the SMaRT Station opened in 1994, we have already expanded the types of recyclables to 27 which resulted in an increased diversion rate of approximately 10 tons per day in 1998. Recycling markets remain volatile and ever-changing as new types of material are introduced to the markets and the rule of supply and demand dictates worldwide marketability. This can have two affects on the after market: 1) New material entering the market, such as a newly engineered plastic, may be recycled but the end market lacks the processing technology to reuse the product, or; 2) new material, such as PEN plastic and virgin plastic may replace current PET packaging, thereby abruptly diminishing the resale price of the PET product which is being recycled. This is one example of how recycling markets for plastic can be affected, and it is critical that processors like the SMaRT Station are also changing the marketability of recovered material to maintain and/or increase diversion levels as long as the method of collection is efficient. Waste Management will continue to examine ways to increase diversion, productivity and profitability of all potential marketable commodities.

- **Maintain quality and expand value-added standards for recovered materials**

The quality of a particular commodity can not only secure higher pricing than current market rates, but also ensure movement of materials during depressed markets. At the SMaRT Station, Waste Management practices a careful balance of quality control measures while attempting to maintain productivity, yet not sacrificing productivity levels of its employees. Quality control begins the moment a load is tipped on the floor as material is identified and separated according to its qualities. Once reaching MRF infeed conveyor lines, full loads or parts of loads which visually demonstrate the richest potential for recyclables recovery, are positively sorted to target recyclables, allowing contaminated material and residue to pass to the main return conveyor for its final transfer to Kirby Canyon for disposal. Bunker inspections are performed before the material is walked out to the conveyor leading to the baler. A Quality Control Specialist uses a tool to remove any contaminants as the material is conveyed to the baler. After the baling process, contaminants are pulled from the bale and this process is repeated as the bales are prepared to be loaded for outbound shipments. This process provides four quality control checkpoints by keeping contaminants and prohibitives out to meet various market and industry specific guidelines. Also, the commodity has added value and reinforces with the mill or broker our commitment to providing a quality product. Waste Management will target continuous training and education of its employees and will conduct on-going market research to maintain and improve the quality and value of its recovered materials.

- **Use "highest and best use" guidelines when possible**

Where possible, materials recovered from the SMaRT Station will be marketed to those end-users who will make a product which will again be recycled rather than landfilled. Our goal is to ensure that recyclable commodities are utilized for its value-added properties. For example, in 1997, USA Waste initiated three new programs guided by the "highest and best use" principle: 1) **Wood Pallets**- those pallets which are unbroken or that are repairable are shipped to a local company which rebuilds and sells used pallets, 2) **White Goods**- refrigeration units are not sold as scrap metal, but instead are shipped to a local company which repairs them and sells the units or their recoverable parts to the public, and 3) **Wine Bottles**- unbroken glass wine bottles are recovered whole and shipped to a regional company which washes and resells them to wineries in Sonoma County. Though the wine bottle program demand collapsed mid-year 1997, Waste Management initiated a new program in 1998 with another company in the same market.

- **Integrate curbside recycling at the SMaRT Station**

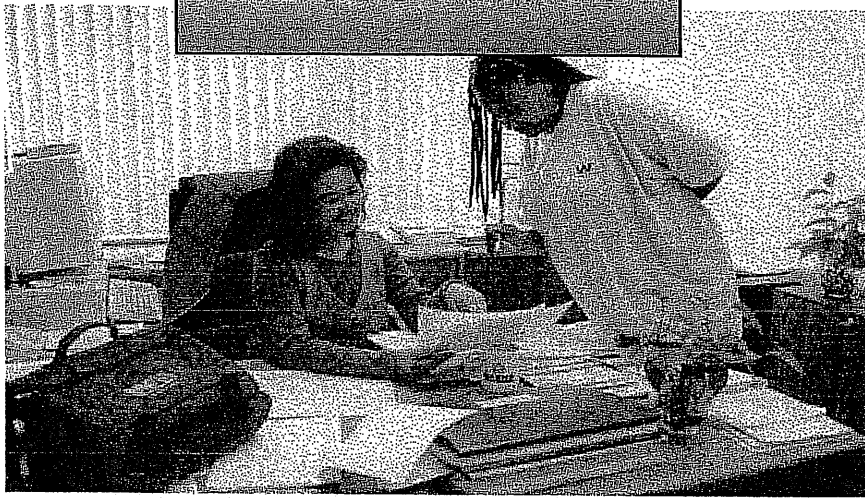
Curbside processing systems are currently being proposed by Waste Management to handle the recyclables for the cities of Sunnyvale, Mountain View and Palo Alto at the SMaRT Station. Two different systems are designed to process additional tonnages of fiber and commingled containers separately. Fiber tonnages received at the SMaRT Station will increase by a potential 104 tons per day to include cardboard, newspaper and mixed paper, which is nearly two times the current volume we are currently processing. Also, an additional 24 tons per day of commingled beverage containers to include aluminum, plastic and glass will be processed compared to only approximately 3.8 tons per day received now. Though there will be operational issues to consider, the impact the volume increase has on the marketing of the material is significant in three ways: 1) logistics- the storage and shipment of the material, 2) Quality - selling lower grade fibers and 3) Packaging - new equipment allows for commingled beverage containers to be baled.

The SMaRT Station can warehouse only 2 days or 10 loads of accumulating fiber once the curbside program starts. If 151 bales per day are added from the curbside program, approximately 8 flatbed trailers or export containers are needed per day. If storage space and loading space are limited, then our operations must dictate either export or domestic markets rather than competitive market forces.

Waste Management can address quality control issues that may occur in processed mixed waste since our employees are trained to manually eliminate contaminants. However, some curbside material which may not be sorted, but baled "as is" is subject to contamination left by participating curbside residents. Though we can "dress" (pick contaminants off) the bales, the most effective way to ensure a clean consistent commodity is to educate the public. Waste Management will communicate any contamination trends to the participating cities and will work together toward identifying possible solutions. Another factor which may downgrade the quality of the commodities sold includes materials which are packaged with different grades. For example, mixed paper is less valuable when mixed with newspaper and vice versa. In some cases pricing may be dropped by \$10 to \$25 per ton or the buyer may reject the load all together. Waste Management will consider collection, processing and material marketing variances and will recommend the best position to the participating cities.

When the curbside program is installed and operational, Waste Management will take advantage of the marketing opportunities presented by baling plastics and aluminum which previously was sold locally in loose containers. Though pilot tests were done in 1997 to bale plastics with the single ram baler, this proved to be a labor intensive project producing inadequate bales. A two-ram baler, which is proposed, will easily handle the added tonnage and give the SMaRT Station an opportunity to sell to export markets. Also, transportation costs will be greatly reduced and middle-man processing costs will be eliminated.

1998 Year-end Review



The year
to be record-
Waste
at the
Station in
The average
waste tons

1998 proved
setting for
Management
SMaRT
productivity.
non-green
shipped per

month for the SMaRT Station increased 28% to 1,983 compared to 1,544 in 1997. Diversion levels also reached an all time high at 4,563 tons which is a 17% increase over 1997. (See graph on page 7 "SMaRT Outbound Commodities"). Recovered tons were higher in certain commodity categories (OCC, MP) due to increased productivity levels; but pricing was neither unusually high or negative (as we paid -\$4.00/per ton in 1996 for mixed paper). At a certain price point, where third party recyclers can cover their hauling, labor and processing costs and can generate a reasonable profit margin, they divert more recoverable, high quality product from the SMaRT Station inbound stream. An example of this would be a company like Smurfit picking up high grade office paper from a local Sunnyvale business.

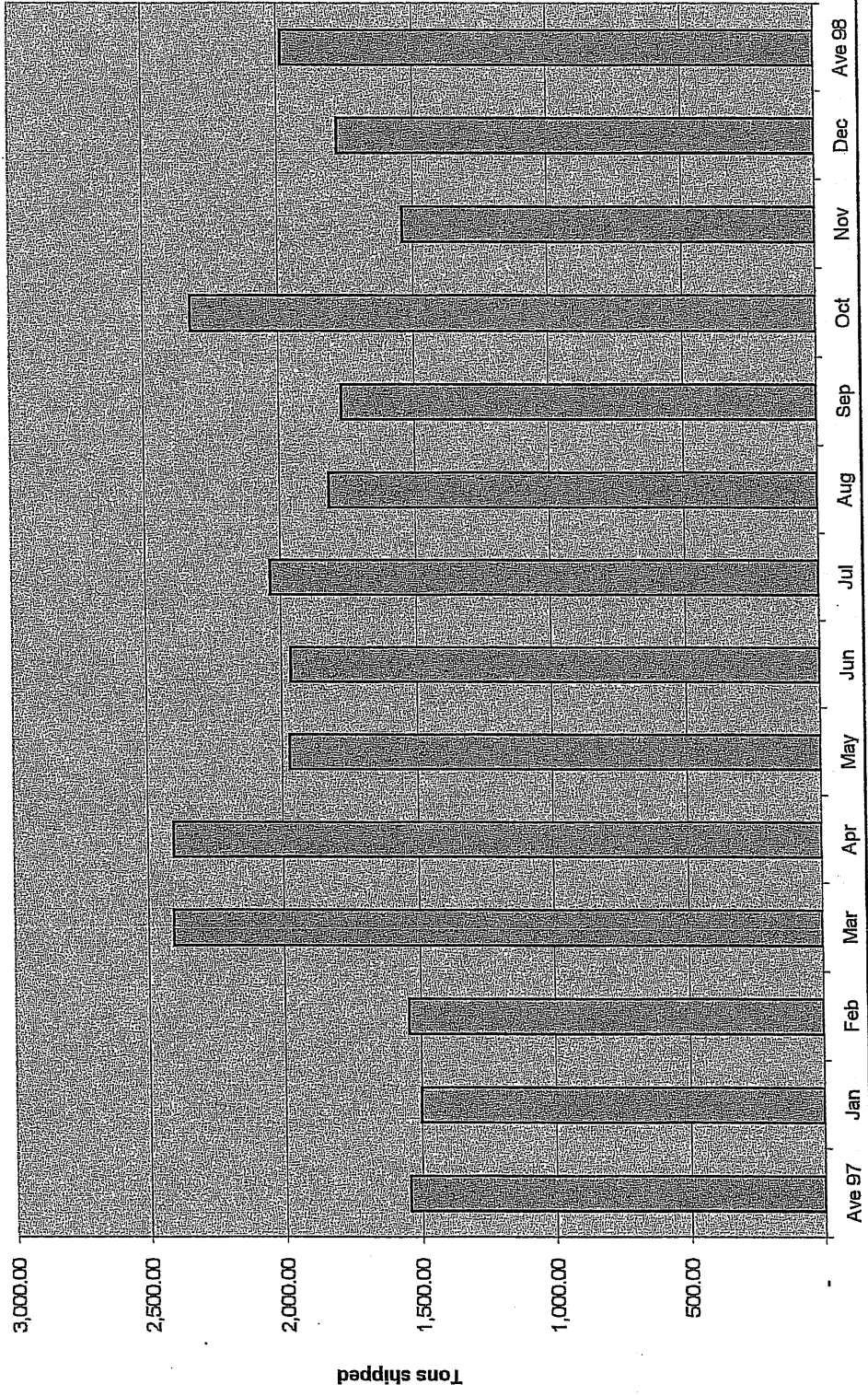
Operational improvements were also applied in the MRF to include: 1) Additional sorters positioned as bag openers to expose more recyclable material, 2) Increased material throughput (57%) in the MRF to sort more material, 3) Chute modifications to significantly reduce jams, and 4) Increased recovery financial incentives for Waste Management employees and included Interim employees on the goal-oriented plan for the first time since 1995. Each area of improvement was an important factor affecting our product marketability. (See graph on page 8 "SMaRT Recovery Percentages").

Our maintenance department has achieved a 92% uptime record contributing to an increase of throughput. Already in the first quarter of 1999, our MRF throughput has increased 32% leading to and additional recovered 12 tons per day of material.

Waste Management expects another record setting year in 1999 due to the initial results of data collected after switching to a two-shift labor system. The above mentioned recovery increase in the first quarter of 1999 was achieved by initiating a two-shift work schedule. The extended shift allows additional tons to be processed at a lower burden depth thereby increasing productivity and reducing jams in the equipment.

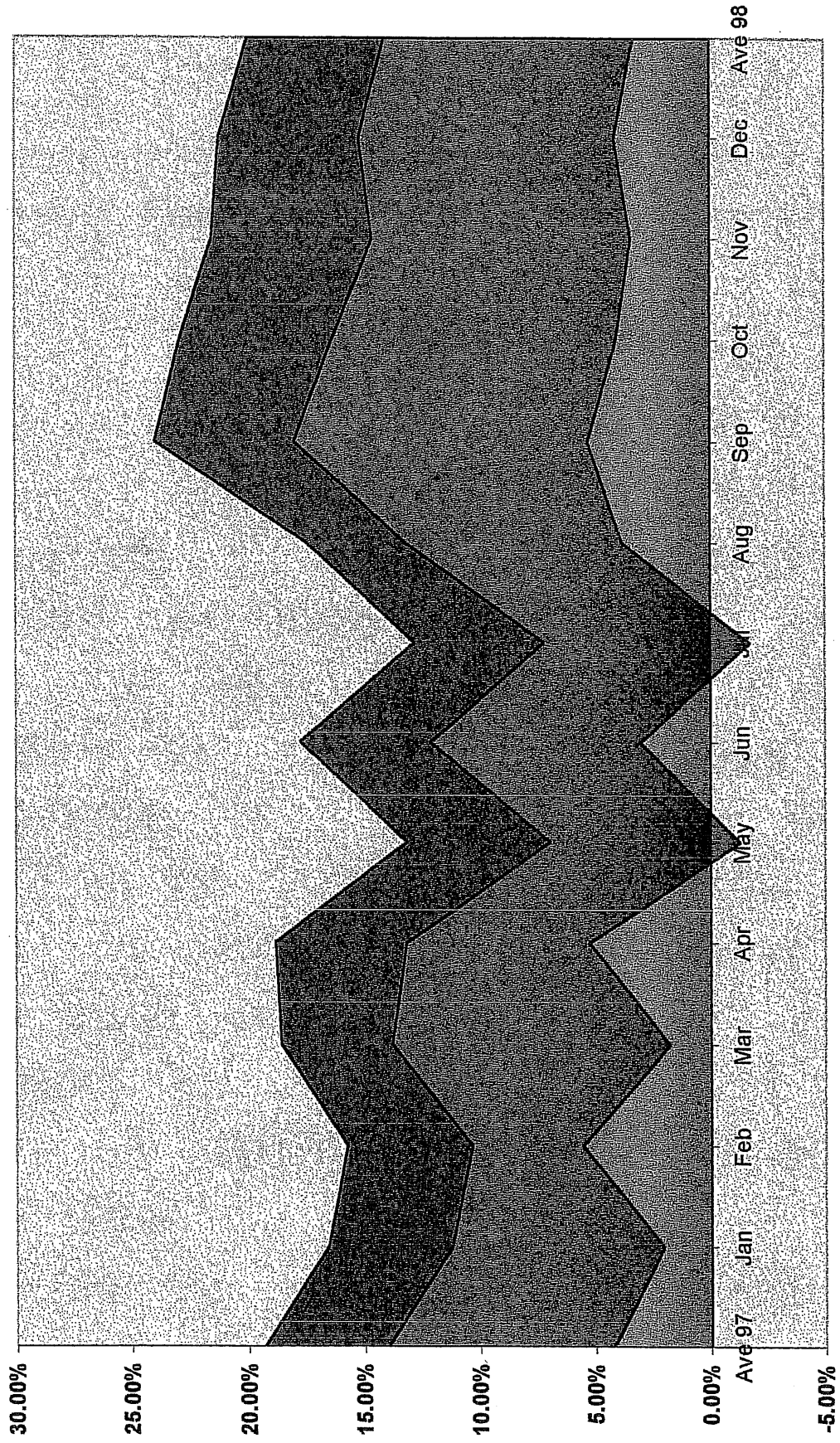
Commodity pricing in 1998 was overall more depressed than the previous year, primarily due to markets tested by factors such as economic crisis in Asia. The Asian Market Crisis specifically impacted pricing unfavorably in the metal markets, as high exports from Asia into the U.S. drove competing market prices downward due to an over supply. Pricing and tonnage data from 1998 is highlighted next to each recyclable commodity listed on the following pages.

All Commodities Shipped

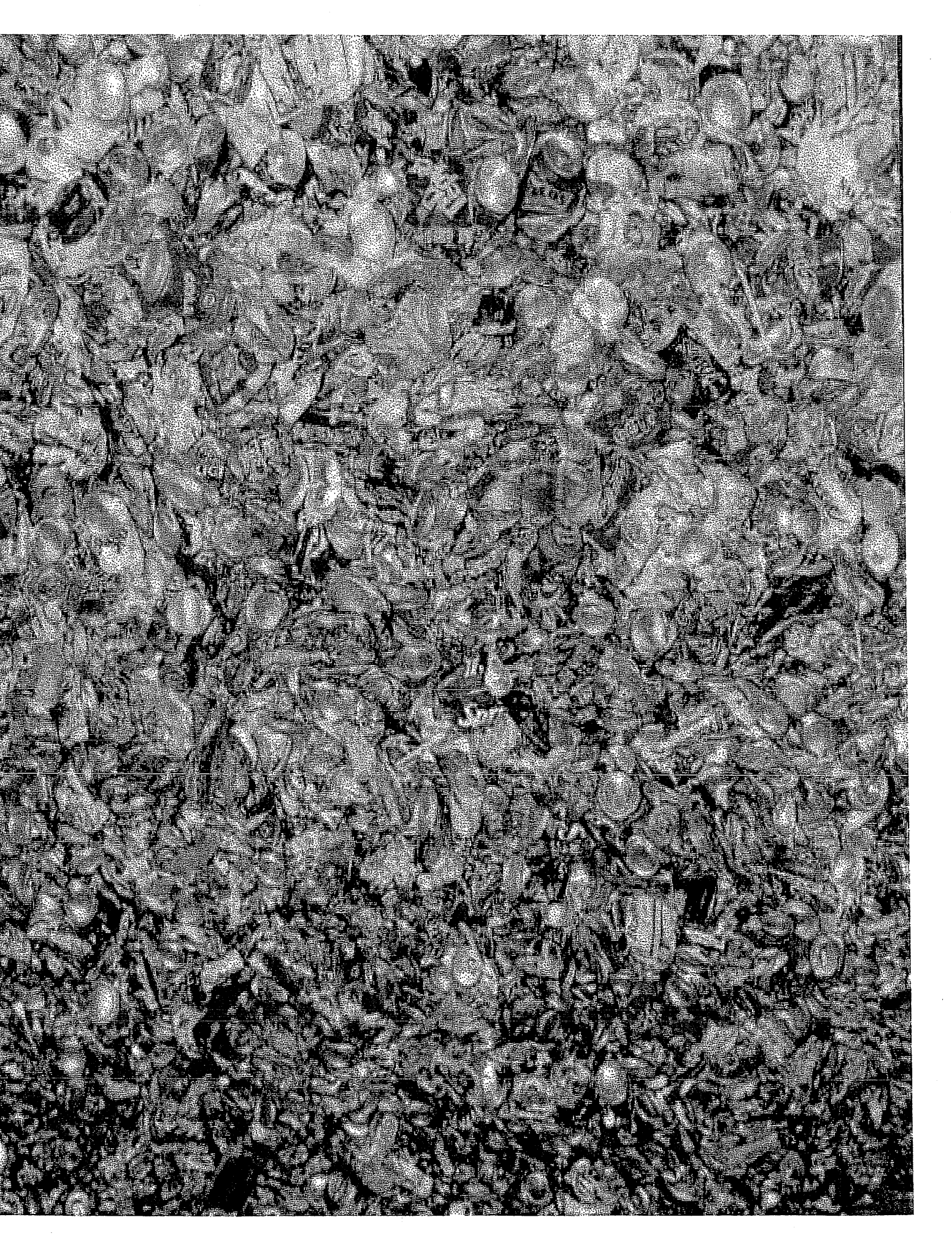


SMaRT Recovery Percentages 1998

Recovery percentage (incl yrd) Recovery percentage (exc yrd) Shrinkage percentage (inc yrd)



***Commodity Overview
and Projections***



**Mixed Paper
(MWP #3)**

Ave. Tons/Mo.:	Ave. Price/Ton:
577.95	\$21.89

Mixed Paper again highest percentage of among all recyclable green waste) at the

mix consisted of paper, office paper, cardboard, newspaper, aseptics, paper bags, junk mail, magazines, envelopes, folders, cereal boxes, craft paper, and other fibers. Pricing for mixed paper was lowest in the first quarter due to the Asian economic crisis which carried over from its initial impact in the fourth quarter of 1997. Pricing climbed slightly and then dipped again in the fourth quarter, however, the overall average price per ton was up \$6 from 1997. Waste Management marketed the material as a supermix, primarily due to consistent high quality grading from buyers and for its high percentage of office paper which is desirable for end users. The quantity of our mixed paper again increased dramatically by over 60 tons per month compared to last year. The reason for the increase can be attributed to production efficiencies and the employee bonus plan. Waste Management primarily sold to buyers with an established relationship regionally such as Recycled Fibers (Newark Paper Company), Pacific Forest Resources and in export markets like America Chung Nam located in the Far East.

represented the recovered material materials (excluding SMaRT Station. The

Projections and Marketing Strategy for 1999

Markets for mixed paper are forecast to continue to hold pricing flat through first and second quarters, as the unstable export market still impacts domestic pricing. Waste Management's current marketing strategies have been successful with mill direct export buyers such as America Chung Nam and we have collaborated with our other Waste Management divisions to negotiate above market prices due to combined volume. Our focus will be to continue to cultivate our business relationships, to share pricing information with Waste Management's other divisions and to keep high quality control standards as we expect to process higher volumes of material. Due to flat market projections for the coming year, we will constantly explore new markets and make adjustments to our mix as necessary. For example, by separating high grade office paper out of the mix, we would increase our volume of high grade paper (office pack) and increase dollars per ton by selling a more valuable grade of paper (see OP Material Overview). Such a strategy, while increasing the revenue stream by focusing on high grade recovery, results in a decrease in diversion. Also, by packaging mixed paper with other more valuable materials such as newspaper and cardboard, we are able to leverage a higher volume of mixed paper sales. The cultivation of long-term relationships provides improved leverage with buyers who are willing to take our product in favorable as well as less favorable market cycles.



SMaRT Recovery Landmark:

+12%

Old Corrugated Containers (OCC #11)

Ave. Tons/Mo.:	Ave. Price/Ton:
254.70	\$73.90

Markets for corrugated reached their high in ton. Overall, an average

ton was realized since last year's price. OCC pricing was strongest in the first quarter, then slipped to \$45 per ton at the end of the year. Our pricing beat the average for the Bay Area as we marketed our OCC with other fibers to leverage good pricing based on volume. Primary reasons for the market drop include Asian markets that kept pricing low, the closure of a local cardboard mill, Inland Container, and regional mill downtime for maintenance. Buyers in 1998 included large domestic end-users such as Georgia Pacific, Smurfit and Weyerhaeuser, and we had access to strong Far East consumers represented by Pacific Forest Resources and America Chung Nam. Cardboard tonnages also increased over last year by 46.3 tons per month, despite the City of Sunnyvale's growing commercial recycling programs. Though cardboard tonnages were much lower than our mixed paper, revenue earned from the commodity constituted 24% of total revenues earned in 1998 from the sale of recyclables. (See chart on page 26 "SMaRT Commodity Revenue - 1998").

cardboard in 1998 February at \$98 per decrease of \$18 per

Projections and Marketing Strategy for 1999

As several Asian economies face uncertainties, export markets are expected to remain low. If prices are going to increase in the first half of 1999, the demand would be created among domestic mills replenishing their stocks after taking downtime. Waste Management will divert much of our OCC to current regional buyers, as they represent large, domestic mills. We will maintain relationships with Far East end-users in the event their pricing remains competitive. End-users find our cardboard desirable, which demonstrates our excellent quality control measures. In addition, clean, separated cardboard from the Buyback/Drop-off Center is included in the baling process, adding value to the processed material. Because of the high quality of our cardboard commodity, Waste Management has been able to sell the commodity as a "high grade" in some markets, and has been nominated to receive a "High Quality Award" from Weyerhaeuser, the nation's largest buyer. Valuable loads such as our OCC can be used as a leveraging tool to package less desirable mixed paper in down markets. This strategy proved successful in 1996.



SMaRT Recovery Landmark: +22%

**Old Newspaper
(ONP #8)**

Ave. Tons/Mo.:	Ave. Price/Ton:
131.87	\$49.42

The newspaper market steady recovery from 1997 and hit it's

in July. Virtually all of our newspaper was exported to China, as it was the most consistent market for the commodity since it contains flexographic ink, which is suitable for their mill technology. Waste Management produced a high quality product and passed every strict on-site inspection (for each outbound load) required for overseas shipments. As with cardboard, we also utilized newspaper as a leveraging tool to move less valuable mixed paper when the markets were weak for mixed fibers in the beginning of the year. Unlike last year, when we experienced a tonnage drop of 16 tons per month, recovery increased by 31 tons per month for 1998. Our productivity has been measured at its highest levels. System jams have significantly decreased, material throughput is higher and the new diversion incentive plan all attributed to greater productivity.

realized a slow, but the last quarter of highest price at \$64

Projections and Marketing Strategy for 1999

The market for newspaper in the Bay Area is primarily driven by export prices because it is considered flexographic. Just as other grades of fiber have been affected by the Asian economic prices, newspaper is expected to remain fairly flat, aside from the usual Chinese New Year and mill downtime fluctuations. The strongest markets for our flexographic grade of news is in the Far East with America Chung Nam. Primary local buyers include Pacific Forest Resources, Smurfit and Weyerhaeuser; however, they cannot use our grade of ONP in their local mills, so they generally act as a broker to sell material elsewhere and retain a fee (\$ per ton) for their services. Monthly price comparisons are examined for regional and foreign markets to ensure competitive rates. As necessary, we will continue to use newspaper as a leveraging tool when mixed paper markets are unfavorable. The quality of our product is high due to less than 3% contamination and the value added by mixing the clean Buyback/Drop-off Center material. Bales are marketed as flexographic, because the ink is soluble in water, therefore tainting the fibers with color. Though non-flexo prices are about \$5-\$10 per ton higher, the SMaRT Station receives a mix of news; i.e.: San Jose Mercury News is non-flexo, the San Francisco Chronicle is flexo.



SMaRT Recovery Landmark: +31%

131.87 x 122

158244
tons

x

flexo
penalty \$10/4

15,824
flexo penalty